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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/803,999	03/12/2001	Matthijs Hendrik Keuper	PHNL 000103	8882

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EXAMINER

GILMAN, ALEXANDER

ART UNIT PAPER NUMBER

2833

DATE MAILED: 08/18/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application No.

09/803,999

Applicant(s)

KEUPER, MATTHIJS HENDRIK

Examiner

Alexander Gilman

Art Unit

2833

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on 27 May 2002 and 21 July 2003.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1-21 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-21 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☒ The proposed drawing correction filed on 27 May 2003 is: a) ☒ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

## Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

## Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_

## DETAILED ACTION

### *Claim Rejections - 35 USC § 102*

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in-

(1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effect under this subsection of a national application published under section 122(b) only if the international application designating the United States was published under Article 21(2)(a) of such treaty in the English language; or

(2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that a patent shall not be deemed filed in the United States for the purposes of this subsection based on the filing of an international application filed under the treaty defined in section 351(a).

1. Claims 1, 3-6, 8, 9, 11-19 are rejected under 35 U.S.C. 102(e) as being anticipated by Johnson et al.

With regard to claims 1, 3-5, 8, 9, 14 Johnson et al (US 6,373, 188) disclose (Fig. 1, 2) an a light-emitting device comprising:

a chip emitting (62) a light of a first wavelength;

a light-emitting surface, and

a phosphor layer (60) which is provided on a first portion of light emitting surface wherein a second portion of the light-emitting surface (portion covered by 38, 50) without the phosphor is surrounded by the first portion.

With regard to claim 6, Johnson et al disclose a light transmitting layer (26).

With regard to claim 8, Johnson et al disclose a optical elements for mixing (36).

With regard to claim 9, Johnson disclose the device structure which is manufactured according to claim limitations.

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With regard to claims 1, 11-13 Johnson et al (US 6,373, 188) disclose (Fig. 3) an a light-emitting device comprising:

a semiconductor light diode (81,80) emitting a light of a first wavelength;

a light-emitting surface, and

a phosphor layer (82) which is provided on a first portion of light emitting surface wherein a second portion of the light-emitting surface (a portion surrounded by 86a, 86b) without the phosphor is completely surrounded by the first portion.

With regard to claims 15- 17, Johnson disclose a light-transmitting layer (26) having a thickness comparable with thickness of the phosphor .

With regard to claims 18 and 19, Johnson disclose that plurality of regions of phosphor form a chessboard pattern.

With regard to claims 20 and 21, Johnson disclose a first (60a) and a second (60b) types of phosphor.

#### ***Claim Rejections - 35 USC § 103***

1. Claim 2 is rejected under 35 U.S.C. 103(a) as being unpatentable over Johnson et al in view of Duggal et al

Johnson et al disclose all of the limitations except for producing white light.

Duggal et al (US 6,294,800) disclose (col. 2,lines 13-29) that converting the LED radiation energy with some phosphor compositions produces substantially white light.

Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to provide the Johnson son et al with the phosphor compositions , as taught by Duggal et al, to achieve substantially white light.

2. Claims 10 is rejected under 35 U.S.C. 103(a) as being unpatentable over Johnson et al in view of Nakamara et al

Johnson et al disclose all of the limitations except for phosphor deposited by screen printing.

Nakamara et al disclose phosphor deposited by screen printing (col. 3, lines 33-34.

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Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to provide the Johnson son et al with a phosphor deposited by screen printing , as taught by Nakamara et al, to achieve precise disposition of the phosphor elements.

### ***Response to Arguments***

Applicant's arguments filed 05/27/2003 have been fully considered but they are not persuasive. Applicants argue, that in claim 1 recites a single light emitting diode with phosphor and without phosphor portions, while the phosphor regions in the prior art (Johnson et al) are separated not in single diode but among multiple light emitting diodes.

Firstly, claim 1 does not claim a single light emitting diode. Secondly, referring to Fig. 1 of Johnson presented a LED segment "with one or more light emitting phosphors". In Fig.2, one of the segments (66a) presents three different separated phosphor portions (60a, 60b, 60c). In another embodiment (Fig. 3), Johnson also shows the portions of the LED with and without phosphor.

Rejections over Thompson and Duggal were not included in this rejection and, hence, the respective Arguments are not answered here.

• Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

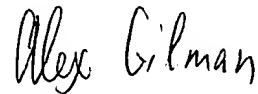
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Any inquiry concerning this communication or earlier communications from the examiner should be directed to Alexander Gilman whose telephone number is (703) 305-0847. The examiner can normally be reached on Monday-Friday, 10:30 a.m. - 8:00 p.m.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Paula A. Bradley can be reached on (703) 308-2319. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 308-7724 for regular communications and (703) 308-7722 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 305-4900.

Alexander Gilman

A handwritten signature in black ink that reads "Alex Gilman". The signature is written in a cursive, slightly slanted style.

August 8, 2003